Naval-Industry R&D Partnership Conference 2004
August 3 – 6, 2004
Ronald Reagan Building & International Trade Center
Washington, D.C.

Naval Research in the 21st Century, Dilemmas and Solutions

CONFERENCE AGENDA

07/29/04 Rev. 16

1:00p–5:00p **Pre-Conference Workshops**
Pre-conference workshops provide conference attendees opportunities to gain education or engage in extended discussions on topics related to the conference.

- 1:00-4:00 **Network Centric Warfare Operations**
The Office of Force Transformation will provide an executive version of their newly developed three day short course on Network Centric Warfare Operations. The executive overview is an opportunity to develop a deeper understanding of the current state of the DOD transformation to Network Centric Operations.

- 1:00-5:00 **Doing Business with the Navy "101"**
Learn the basics of partnering with the Navy led by ONR's Industrial and Corporate Programs Department. This is the second year of the workshop. This year, the workshop will focus on identifying resources and programs in support of naval missions and how industry can interface with naval programs. Topics to be covered include the Navy Transition Assistance Program, Small & Disadvantaged Business Utilization, Partnership Opportunities, Information Resources, Working with the Naval Laboratories and Industry Perspectives.

- 1:00-4:00 **Accelerating "Time to Market" of Embedded Software**
The workshop will address technical computing and model-based design tools and processes to rapidly develop new software in an effort to improve the quality and timeliness of software deployed to Naval Forces.

- 1:00-2:30 **Power to the Edge**
This pre-conference workshop will provide an overview of the Rapid Acquisition Initiative – Net Centricity (RAI-NC) sponsored by the DOD CIO. The RAI-NC is funded by a central investment fund that encourages DOD components, along with their business partners, to accelerate information technology initiatives in support of net centric business transformation. The workshop will include a demonstration of the Test & Evaluation (T&E) Weblog, a current pilot fielded at the recent G8 Summit and a discussion of how to participate in the RAI-NC program.

- 1:00-4:00 **Accelerating "Time to Market" and the Impact of Nanotechnology**
This pre-conference workshop will address the strengthening of the R&D partnerships to accelerate the time to market of newly-developed technology with an emphasis on nanotechnology. The workshop will address Government initiatives supporting transition of S&T to product and opportunities for investment.

- 1:00-3:00 **Independent Research and Development (IR&D)**
  This pre-conference workshop will address the overall operation and initiatives of IR&D.

- 2:30-4:00 **Intellectual Property Rights (IPR) Management**
  This pre-conference workshop will address intellectual property rights management.

- 1:00-4:00 **Radical Innovation**
  This pre-conference workshop will address radical innovation techniques. Innovative technologies highlighted will include unmanned vehicles, E-M rail gun, Electric Ship, and others.

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6:45-7:45   **Breakfast Buffet**

7:00a-5:00p **Conference Registration**

7:45-8:00   **Conference Call to Order**
National Anthem
Mr. Trell Stanislaus, Office of Naval Research
Conference Structure
Welcome
RADM Jay M. Cohen, Chief of Naval Research

8:00-8:45   **Speech: Naval Research in the 21st Century**
The Honorable Gordon R. England, Secretary of the Navy, will share his principles of leadership based on personal experience as a business executive and the 72nd Secretary of the Navy. He will also share the dilemmas facing Naval Research in the 21st Century.

8:45-9:30   **Speech: Defense Transformation**
VADM Arthur K. Cebrowski, USN (Ret), Director of Force Transformation, Office of the Secretary of Defense, will provide an update on the goals and initiatives of the Defense Transformation Office.

9:30-10:15   **Speech: Warfighting and Disruptive Technologies: *Disguising Innovation***
CAPT Terry Pierce, Associate Dean of the School of International Graduate Studies, Naval Postgraduate School, advances our understanding of military innovation through the concept of disruptive innovation.

10:15-10:30 *(Break)*

10:30-11:45 **Panel: Positioning Naval Research for the 21ˢᵗ Century**
This panel of ONR Senior Personnel and Associate Technical Directors will provide an update on S&T programs that are the foundations for Naval Power 21.
Moderator: Dr. Stephen Lubard, Technical Director, Science & Technology, Office of Naval Research
Dr. John Montgomery, Director of Research, U. S. Naval Research Laboratory and Associate Technical Director, Discovery and Invention, Office of Naval Research
Dr. Richard Carlin, (Acting) Chief Scientist, Office of Naval Research
Dr. Frank L. Herr, Jr., (Acting) Head, Ocean, Atmosphere and Space Department, Office of Naval Research
CAPT John Kamp, Assistant Chief of Naval Research,, Office of Naval Research
Dr. James J. DeCorpo, Technical Director, Office of Naval Research Global Office
Dr. Maribel Soto, (Acting) Associate Technical Director, Innovation, Office of Naval Research
Dr. Joe Lawrence, (Acting) Associate Technical Director, Technology Transition, Office of Naval Research

11:45-12:10 **Speech: HSARPA Initiatives**
Dr. Kirk Evans, Program Manager for Homeland Security Advanced Research Projects Agency (HSARPA), will discuss current HSARPA initiatives.

12:10 **Ribbon Cutting—Open Innovation Marketplace: Technology Showcase/Naval Technology Needs/Exhibits**

12:30-2:00 **Luncheon Speaker: ADM Edmund P. Giambastiani, Commander of U.S. Joint Forces Command**
ADM Edmund P. Giambastiani, Commander of USJFCOM, will present an operational level overview of joint transformation and the challenges for industry.

2:00-3:30 **Panel: "Seekers and Solvers"**
This panel explores disruptive and sustaining innovation theories, the role of disruptive innovation in research, and the impact of disruptive dilemmas throughout military history to better understand the roles of both sustaining and disruptive innovation in technology.
Moderator: The Honorable Jerry M. Hultin, Dean, Wesley J. Howe School of Technology Management, Stevens Institute of Technology
Dr. Michael E. Raynor, Director at Deloitte Research
Dr. Alpheus Bingham, Chairman of the Board, Innocentive
CAPT Terry Pierce, PhD Associate Dean of the School of International Graduate Studies, Naval Postgraduate School
RADM (sel.) Michael Mahon, Director, Deep Blue
Master Chief Petty Officer James Blesse, Tech Solutions, Office of Naval Research

3:30-3:45 **(Break)**

3:45-5:30   **Open Innovation Marketplace: Scheduled Interactive Exchanges - (Government to Business (G2B) Marketplace, Business to Business (B2B) Marketplace); Naval Technology Needs (continued)**

3:30-7:30   **Technology Showcase/Exhibits (continued)**

3:45-5:30   <u>**Panel Sessions**</u> These panel sessions allow for more in-depth discussion of topics in a classroom setting.

Strategic Conversations – Representatives from the Office of Force Transformation, Deloitte Research, Stevens Institute of Technology, the Navy Warfare Development Center (NWDC) and the Seventh Fleet will provide in-depth discussions on the next steps that technologists can utilize to bring their technology into the naval experimentation and innovation processes.

ONR Information, Electronics and Surveillance Dept. – This panel will address what it means to have persistent surveillance for asymmetric warfare on the roadmap to **FORCEnet**.

ONR Ocean, Atmosphere and Space Dept. – This panel will address technologies that are addressing naval needs and programs on the roadmap to **Sea Shield**, specifically in the area of Mine Warfare.

ONR Engineering, Materials and Physical Science Dept. – This panel will address technologies that are addressing naval needs and programs on the roadmap to **Sea Basing**.

ONR Human Systems Dept. – This panel will address technologies that are addressing naval needs and programs in the medical arena on the roadmap to **Sea Warrior**.

ONR Naval Expeditionary Warfare Dept. – This panel will address Naval and Marine Corps aircraft, air and surface weapons technology, expeditionary warfare and aerospace sciences on the roadmaps to **Sea Strike**, **Sea Basing** and **Expeditionary Maneuver Warfare.**

ONR Industrial and Corporate Programs Dept. – The Industrial and Corporate Programs Department strives to stimulate advantageous Government/Industry/Academic partnerships. This panel will discuss strategic relationships built with Industry, the Naval Research Enterprise and Universities, tech transfer; and investment methods used between programs to achieve the greatest benefit for an acquisition platform – the DDX on the roadmap to **Sea Strike** with contributions to **Sea Enterprise**.

5:30-7:30   **Reception**

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6:45-7:45   **Breakfast Buffet**

7:45-12:00   **Open Innovation Marketplace: Technology Showcase/Exhibits**

7:45-8:00   **Welcome**
RADM Jay M. Cohen, Chief of Naval Research

8:00-9:00   **Speech: Naval Power 21**
ADM Vern Clark, Chief of Naval Operations, will present a top level update on Naval Power 21.

9:00-9:30   **Speech: Force Protection and Combating Terrorism**
Mr. Kelly McCann, Senior Vice President, Kroll., one of the country's foremost experts on force protection, anti-terrorism and counter-terrorism strategies will speak on tactics, techniques and procedures required to meet the challenges of 4th Generation Warfare.

9:30-9:45   ***(Break)***

9:45-10:45   <u>**Panel: On-going/Unfulfilled Needs for Naval Services**</u>
This panel will discuss the most pressing needs of the Navy and Marine Corps, transformational initiatives required to fulfill those needs and provide insight into the process of balancing the future needs with current needs.
Moderator- RADM Jay M. Cohen, Chief of Naval Research
Brigadier General Robert E. Schmidle, Jr., Director of Expeditionary Force Development Center, U. S. Marine Corps
Mr. Jean Reed, Professional Staff Member, House Armed Services Committee
Mr. Randy Gangle, Executive Director of the Center for Emerging Threats and Opportunities
Col. Michael P. Marletto, 1st Marine Expeditionary Force
Col. Steven Fisher, 1st Marine Expeditionary Force

10:45-11:00   **Speech: Transforming the Force, Foreign Adversary Cultural Threat**
Dr. Montgomery McFate, Office of Naval Research, will present an overview on understanding adversary culture in the Global War on Terror. She will provide an overview of the operational limitations and opportunities posed by non-Western adversarial social systems, and propose ways of meeting the challenges and exploiting the vulnerabilities.

11:00-11:20   **Speech: Corporate Architectures to Stimulate Innovation and Speed to Market**
Mr. Colin Angle, CEO and Co-Founder of iRobot, will discuss a corporate architecture that serves both commercial and military markets.

11:20-12:15 **Panel: Power to the Edge**
This panel will discuss initiatives underway to cut the time to market of new technologies. Particular emphasis will be placed on utilizing search engines to improve business practices.
Moderator: Mr. Thomas Kowalczyk, Manager, KMRM, LLC
Mr. Michael Jaggard, ASN(RDA) Executive Director, Acquisition Management
Mr. David Winnergren, Chief Information Officer, Department of the Navy
Dr. Ronald Jost, Assistant Secretary of Defense (NII) (invited)
Dr. Ron Kostoff, Office of Naval Research
Mr. Gary Markovits, President and CEO, Innovation Business Partners, Inc.

12:15-1:45 **Luncheon Speeches:**
Mr. Dobie McArthur, Special Assistant to the Deputy Secretary of Defense
Mr. Dobie McArthur will deliver a speech on "operationalizing" ideas with the goal of accelerating the transition the deployment of ideas to product.
Mr. Daniel Dubno, Producer and Technologist, CBS News
Mr. Daniel Dubno, "Digital Dan", Emmy Award-winning producer and technologist at CBS News, will discuss his perspectives on commercial applications for military technology.

1:45-3:15 **Panel: Best of the Best Technology Transitions to Industry and the Fleet circa 2007**
This panel will showcase of "Best of the Best" technology transitions both to industry and the Fleet.
Moderator: Mr. Robert Buderi, Editor in Chief of MIT's Technology Review
Dr. Susie Wee, Principal Research Scientist and R&D Department Manager, HP Labs
Dr. Yuqing Gao, Speech Recognition Expert and Computer Scientist, Watson Research Center, IBM
Dr. Jason Wiener, CEO of new search engine Dipsie
Mr. Daniel McGahn, Executive Vice President and Chief Marketing Officer, Konarka

3:15-3:30 **(*Break*)**

3:30-5:00 **Open Innovation Marketplace: Scheduled Interactive Exchanges - (Government to Business (G2B) Marketplace, Business to Business (B2B) Marketplace); Naval Technology Needs; Technology Showcase/Exhibits (continued)**

3:30-5:00   **Breakout Sessions**
Breakout sessions allow for further expansion of topics in a classroom setting.

The Marine Corps Challenges – Separate breakout sessions will be held to address the challenges faced by the U. S. Marine Corps for autonomous systems, urban/asymmetric operations and cultural awareness.

The Urban/Asymmetrical Operations breakout will discuss why the Marine Corps should focus on this type of operation and what is being done to provide the force with new weapons and tools to fight in this environment. The session features a distinguished panel of experts who currently are helping the Marine Corps in their efforts in Urban/Asymmetrical Operations.

The Cultural Awareness breakout will focus on conveying the USMC cultural intelligence lessons and insights emerging from OIF. The session features a distinguished panel of experts who will discuss USMC operations in Iraq, the need for deeper cultural awareness of the indigenous environment, some of the social network analysis research supported by ONR, and U. S. Army teaching tools for cultural awareness, and their possible adaptation to USMC needs.

Technology Flow from Industry and Academia to the Fleet – This breakout will showcase four ONR-led projects aimed to successfully meeting fleet needs: the Navy TechMatch Program from WVHTC, Technology Research, Education and Commercialization Center (TRECC) from Illinois, Center for Commercialization of Advanced Technology (CCAT) from San Diego and HDTV from Honolulu. Additionally, the Manufacturing Extension Partnership (MEP) will present overviews of their approaches to technology transition.

eBusiness: Transformation through Process Re-engineering and Technical Innovation - The Navy's eBusiness Office will provide additional detail on eBusiness initiatives underway, as well as an overview of opportunities to participate in future initiatives.

Accelerating "Time to Market" and the Impact of Nanotechnology - This breakout will address the strengthening of the R&D partnerships to accelerate the time to market of newly-developed technology with an emphasis on nanotechnology. The breakout will address Government initiatives supporting transition of S&T to product and opportunities for investment.

ONR Global/Science Advisors - This breakout will explore a "day in the life" from the perspectives of current scientists from ONR Global offices, as well as address the overall operation and initiatives of ONR Global.

In-Stream Technology Push - This breakout will address current Naval SYSCOM initiatives aimed at improving the transition of S&T to the warfighter.

5:00-5:15   **Technology Investment Overview Kick-Off**
Dr. Stephen Lubard, Technical Director, Science & Technology, Office of Naval Research, will provide an overview of what conference attendees can expect to gain from participation in the Technology Investment Overview.

August 6, 2004

8:00-12:00   **Technology Investment Overview**

ONR is responsible for providing technology capabilities for known military needs and for providing innovative technologies for future military needs. In this quest ONR has the opportunity to work on a wide range of advanced concepts and is constantly looking for new concepts and ways to improve old ones. During the previous 3 days many of these ideas were discussed. At the post-conference workshop, Program Officers will speak in more detail about the direction they are taking for some future concepts and invite attendees to discuss their innovative ideas in an open forum discussion.

Vignettes

Conference content will be supplemented by vignettes providing brief snapshots of conference related themes and technologies.